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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/775,522

02/10/2004

Matthew G. Goodman

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68852 7590 10/07/2008
Knobbe, Martens, Olson & Bear LLP
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EXAMINER

MACARTHUR, SYLVIA

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

10/07/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/775,522	Applicant(s) GOODMAN ET AL.	
	Examiner Sylvia R. MacArthur	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 38-43 is/are pending in the application.
- 4a) Of the above claim(s) 38-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/30/2007 has been entered.

Election/Restrictions

2. Applicant's election with traverse of claims 1-11, 38, 41, and 43 in the reply filed on 6/30/2008 is acknowledged. The traversal is on the ground(s) that independent claim 38 recites that neither the first means or the second means comprises lift pins and recited in paragraph three that the species I is covered by the elected claims. This is not found persuasive because as stated in the letter of non-compliance of 5/16/ 2008, species I and II are distinct because they are unconnected in design, operation, and effect, recall that the examiner also stated that claims 1-11 are species I and claims 38-43 are species II. Applicant's arguments have been considered by the examiner though they are unpersuasive in that applicant will be given consideration of the nonelected species upon allowance of a generic base claim.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 5, and 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Gardner et al (US 5,300,175).

Gardner et al teaches a method for mounting a wafer to a submount (first platform 33/30, and col. 3 lines 1-37). The apparatus of Gardner comprises a reaction chamber 47, a first and second load platform (susceptor 21), see Figures. A heat source is inherent as a temperature controller is recited in col. 2 lines 53-66.

5. Claims 1-3, 5, and 8-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Huang et al (US 2004/0094095).

Huang et al teaches a substrate holder assembly used within reaction chamber see Figures. Huang et al teaches a first load platform 58 and second load platform 66, see Figures and sections [0027] and [0030].

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gardner et al or Huang et al in view of Arai et al (US 2003/0075109).

The teachings of Gardner et al or Huang et al were discussed above.

Both fail to teach:

Regarding claim 6: The first load platform comprises three support pins.

Regarding claim 7: The recited materials of construction.

The prior art of Arai et al teaches a vapor phase growth apparatus. Section [0030] of Arai et al teaches three support pins. The support pins are made from silicon carbide according to Section [0023] of Arai et al. The motivation to construct the apparatus of Gardner et al or Huang et al to provide three support pins is that three is the optimal number of pins to provide ample support for the substrate to avoid chemical and physical damage during processing. and/or preparation for wafer transport. Thus, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to provide three support pins as taught by Arai et al.

Additionally, it would have been obvious at the time of the claimed invention to construct the pins of silicon carbide as it is a widely known dielectric material and used to construct pins and endure the harsh chemical and physical environment of semiconductor manufacturing.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gardner et al or Huang et al.

The teachings of Gardner et al or Huang et al were discussed above. Both fail to teach the recited distance between the first and second load platform.

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The relative distance of the first and second load platform affects the ease of transferring the substrate between platforms and ensures the bending and slippage of the wafer is hindered. It is the examiner's position that the determination of the optimal relative distance is a matter of obviousness and could be determined without undue experimentation. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. Thus, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to have determined the optimum values of the relevant process parameters through routine experimentation in the absence of a showing of criticality, *In re Aller*, 220 F. 2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sylvia R. MacArthur whose telephone number is 571-272-1438. The examiner can normally be reached on M-Th during the hours of 8 a.m. and 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

September 30, 2008

/Sylvia R MacArthur/
Primary Examiner, Art Unit 1792